PLAN

The Essex County Health Department has developed a plan in conjunction with the Essex Regional Health Commission (ERHC), Nutley Fire Department (Nutley) and the Newark Fire Department (Newark) to identify the most salient environmental issues within Essex County. The Essex County Health Department is the certified lead agency for the provision of environmental services within Essex County under the auspices of the County Environmental Health Act (CEHA). This plan has been formulated and submitted to the New Jersey Department of Environmental Protection (NJDEP) in accordance with the guidelines and requirements contained in the County Environmental Health Standards B Environmental Health Standards of Administrative Procedure (NJAC 7:1H-2.1 et seq.)

COMMUNITY

Essex County is the second most densely populated county in New Jersey, comprised of 22 municipalities. The County has a population of 798,301, which represents 9.2% of New Jersey=s total population, residing within its 127 square miles, and includes 5,985 acres of parkland. The citizens of Essex County are ethnically, racially and financially diverse with a reported median family income to be $54,818.

The housing within the County vastly differs from urban to suburban areas. The urban areas consist mainly of multi-family dwellings while the suburban areas consist of a mixture of single family dwellings and a smaller percentage of multi-family dwellings. The County has experienced a boom in construction over the past few years in both suburban and urban areas.

RESOURCES and PARTNERSHIPS

Currently, the Essex County Health Department maintains a Health Officer, staff of two inspectors for the Sold Waste Control Program, and a secretary for administrative issues. The Essex County Health Department has entered into three inter-local service agreements. The Essex Regional Health Commission (ECRHC) conducts air, noise, underground storage tanks (UST) and water pollution services. Both Nutley Fire Department (Nutley) and Newark Fire Department (Newark) conduct Emergency HazMat Response

LOCAL ENVIRONMENTAL ISSUES

As a major transportation thoroughfare, Essex County is notably impacted by mobile sources of pollution, particularly those associated with diesel powered vehicles. Clearly the evaluation and control of air pollution and Emergency HazMat Response are two of the most salient environmental issues within Essex County. While certain program areas warrant expanded activities, in general, a significant expansion cannot be conducted without the funding to provide the staff and equipment to conduct the activity.

In addition, there are many other issues too numerous to elucidate upon at length in this context that warrant no less a degree of priority. These include surface water quality, underground storage tanks, and the intentional introduction of hazardous substances to the environment in the form of pesticide use or act of terrorism.

The resolution and control of these issues can only occur by the participation of all levels of government in consort with all individuals and entities affected by or maintaining a contributory role with regard to these issues. Open and effective government is essential.

HAZARDOUS MATERIALS/EMERGENCY RESPONSE/HOMELAND SECURITY

Threats to the environment vary in size and location. Chemical fires, explosions, leaking trucks, contaminated drinking water, and toxic fumes are just some of the situations Emergency HazMat Response regularly confronts. The critical element in all cases is time, prompt action is crucial! The strength of the Emergency HazMat Response team is its ability to mobilize experts and resources to respond to immediate, critical, hazardous substance.
Essex County hazardous materials response program has now been in effect for approximately 10 years with Nutley as the sole subcontractor for the CEHA program. In 2004 Newark also became a subcontractor for hazardous material response for the CEHA program. Nutley handles all of the low concern and emergency responses within Essex County on a daily basis. The partnership between the ECHD, Nutley and Newark has enabled Essex County to increase response capacity. Further, we have created a mass decon program comprised of 10 Essex County municipal fire departments. The decon program includes the New Jersey Department of Health decon trailer that is operated by Belleville Fire Department. Because of several grants and other initiatives available much needed emergency equipment was purchased that is utilized for low concern, environmental emergency response and terrorist attacks. Our initiatives for 2005 include expanding CBERN capacity and coordination for the top off exercise.

AIR:

In 1998, The Environmental Protection Agency issued a final regulation to control volatile organic compound (VOC) emissions from architectural coatings. VOCs contribute significantly to the formation of ground-level ozone, the primary constituent of smog. Architectural coatings are commonly applied by consumers and contractors, and include products such as exterior and interior paints, industrial maintenance coatings, wood and roof coatings, primers, and traffic paints. The EPA seeks to control these sources of VOC=s because in the past, the Clean Air Act has focused on reducing VOC emissions from mobile sources (cars and trucks) and stationary sources, such as power plants and factories. Requiring additional controls on these sources may be very costly for the emissions reductions achieved. Regulating architectural coatings may prove to be a more cost-effective way of substantially reducing VOC emissions. EPA determined that architectural coatings are a significant source of largely unregulated VOC emissions.

As a major transportation thoroughfare, Essex County is heavily impacted by mobile

sources of pollution, particularly those associated with diesel powered vehicles which are major contributors of fine particulates (diesel exhaust from on-road vehicles such as trucks and buses and from off-road equipment such as bulldozers, excavators and loaders). Although overall, the state of New Jersey attained the newly promulgated Federal standard for 2.5micron airborne particulate matter, Essex County was listed as one of 13 of the states 21 counties considered to be PM 2.5 non-attainment areas.

Ground-level Ozone pollution is another pollutant especially of concern. Health risks are higher for populations living near roadways and in urban areas, and these two features characterize nearly all neighborhoods within Essex County. The EPA has classified diesel exhaust as likely to be carcinogenic to humans by inhalation at environmental exposures. Ground-level Ozone exposure can cause several health effects, including irritation of the lungs, increased incidents of asthma, reduced lung function, and aggravation of chronic lung diseases. Increased ozone and smog concentrations severely affect the quality of life for susceptible populations B small children, the elderly, and asthmatics B and present health risks for everyone. Given the density of both the population and the number of major transportation thoroughfares (NJ TPK, NJ GSP, I80, I280, I78, Port Newark), it becomes clear that the evaluation and control of air pollution from fossil fueled motor vehicles is one of the most salient environmental issues within Essex County.

Idling school buses can pollute air in and around the bus. Exhaust from buses at idle can also enter school buildings through air intakes, doors, and open windows. Diesel bus exhaust from excessive idling is a health concern and children are more susceptible to air pollution than healthy adults because their respiratory systems are still developing and they have a faster breathing rate. By continuing in its efforts under the enhanced idling enforcement initiative, begun in 2005, the Essex CEHA will continue to act in a tangible fashion during 2007 to abate unnecessary air contaminants (soot, fine particulates, ozone) from excessive idling of vehicles.

Generally, Hazardous Air Pollutants (HAPs) are also a concern in Essex County. In 1998, The EPA presented county-by-county Emission Density Maps for 34 HAPs throughout the country and compared them to health benchmarks. Emission densities in Tons per square mile for 25 compounds (73%) mapped in Essex County were projected to be in the 95 percentile for the Nation. Risk estimates associated with tetrachlorethylene are particularly of interest because numerous emission sources of this compound exist in the county. As of 2005, Dry Cleaning operations throughout the county are subject to strict EPA rules for control of hazardous air pollutant emissions, and the Essex CEHA inspections at these facilities ensures compliance and will continue to do so in 2007.

NOISE:

Excessive noise is, perhaps, one of the most vexing environmental stressors an individual may experience. A densely populated urban environment with is intimate interface of residential, commercial, industrial and transportation-related activities is often a noisy environment. Such an urban area undergoing a massive boon in new construction has even greater concerns. In addition to the Noise Control code regulating noise from commercial and industrial facilities, the State of New Jersey DEP has developed a Model Noise Ordinance that can be adopted by local municipalities. The Noise Control Act allows

municipalities to adopt noise control ordinances that are more stringent than the State code. The prevention of excessive noise and its resolution where it exists will likely always remain an ongoing environmental issue in the urban environment that needs to be addressed with vigilance. The Essex CEHA aggressively enforces the State Noise Code, and assists local health in all efforts to adopt the Model Noise Ordinance.

PESTICIDES:

Over the last 20 to 30 years as the quality of outdoor air has improved, indoor air pollutants have become more of a concern. Research indicates that people spend as much as 90 percent of their time indoors. Because we spend so much time indoors, awareness of the potential effects of indoor air pollution on human health is vital. Pesticide use in Multi-dwelling buildings and schools can provide an important input to an individual=s exposure and must be monitored closely to assure pesticide application is in strict conformance with regulations. Proper notification of pesticide application can reduce the chance of inadvertent exposure by the general public. Inspections, conducted to assure proper notification and use of pesticides by licensed and registered companies and individuals, remain a priority for the Essex CEHA.

On December 12, 2002, Governor James McGreevey signed into law the **2002 NJ School Integrated Pest Management Act**, which became effective for schools on June 12, 2004. Schools are now required to implement their individual IPM programs, to comply with this new law. The School IPM Act requires schools to establish an IPM program, which includes adopting a **Model IPM Policy** and implementing a Model IPM Plan, which is a comprehensive site-specific document, which guides a school's day-to-day activities for controlling pests. The Policy and Plan cover both the management of indoor pests such as rodents and cockroaches, as well as outdoor pests such as weeds or stinging insects. IPM is a thoughtful, holistic approach to controlling pests that uses a wide variety of tools such as sanitation, structural modifications and other management techniques rather than automatically turning to chemical control as a first option. Pesticide use is an important tool in the pest control "toolbox" but often an effective IPM program can reduce the reliance on chemical control. In a typical program, pertinent information about a pest is combined with careful selection of suitable management techniques to eliminate the causes of pest outbreaks or to otherwise manage the pest in an economical manner that also represents the lowest possible hazard to people, property, and the environment.

Reducing the potential for pesticide exposure to children is the driving force behind the School IPM Act because children are more vulnerable to the effects of pesticides than adults. Other benefits include: Reducing student and staff exposure to pesticides; Suppressing pests that may carry allergens or disease pathogens; Reducing environmental pollution; Reducing pest damage; Reducing unnecessary pesticide applications; Minimizing emergency repairs; Improving maintenance and sanitation; Reducing waste caused by infested food products. During 2007, the Essex CEHA will conduct IPM in schools inspections to assure compliance with the new requirements.

Finally, Pesticide registration is the process through which EPA examines the ingredients of a pesticide; the site or crop on which it is to be used; the amount, frequency

and timing of its use; and storage and disposal practices. EPA evaluates the pesticide to ensure that it will not have unreasonable adverse effects on humans, the environment and non-target species. A pesticide cannot be legally used if it has not been registered with EPA's Office of Pesticide Programs. In 2006, the Essex CEHA will participate in a campaign throughout the county to discover and control the use and/or sale of unregistered pesticides.

AMBIENT SURFACE WATER QUALITY:

Essex County, with its vast network of parks encompassing Lakes, Rivers, reservoirs, waterfalls, streams, creeks, ponds and wetlands, views its waterways as vital to the quality of life of its residents. Non-point source pollution constitutes the biggest threat to our waterways. To protect and enhance water quality, improve drinking water quality, protect aquatic life and preserve waterways for recreation such as fishing and boating, surface water must be monitored for pollution from the discharge of harmful nutrients from Publicly Owned Treatment Works (POTWs), industrial facilities, and storm water runoff, which has degraded the quality of many of our freshwater streams, lakes and rivers. Phosphorus is discharged into our waters through fertilizers, soaps and detergents, pet droppings, animal waste and septic systems, to name a few. Essex CEHA participates in the State-wide Ambient Surface Water Quality monitoring program by conducting DEP-specified sampling. Analysis of the samples renders critical input to the design of measures to protect and improve surface water quality.

SAFE DRINKING WATER:

Communities throughout Essex County obtain drinking water from a combination of surface and sub-surface water supplies. Most drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. Sewer plants and other Industrial facilities discharge millions of gallons per day into the sources of Essex County's drinking water, contributing to unhealthy levels of contaminants linked to miscarriages, birth defects, and cancer. Key drinking water supplies serving Essex County, including the Charlottesburg and Wanaque Reservoirs and the Ramapo and Pompton Rivers, plus other major reservoirs and feeder streams in the North Jersey and Newark reservoir systems, require Category 1 protections that would help prevent water quality degradation and discourage development where it would impair or destroy natural resources and environmental quality (normally only given to trout-bearing waters). Additionally, at least three waterways in Essex B the West Branch of the Rahway River, the Second River Channel, and the Passaic River B feed into drinking water sources for other communities in the State. Strong enforcement of strong protection codes continues to be a priority in the county, as well as inspections of specific categories of drinking water wells.

UNDERGROUND STORAGE TANKS:

Underground Storage Tanks (USTs) containing gasoline and diesel fuel can rust and leak over time, impact soil and groundwater and pose a number of environmental and health

risks. New Jersey requires gas station owners to take precautionary measures to insure against leaks and, in the event a tank leaks, prompt action to minimize those risks. There are approximately 407 Gas Station facilities in Essex County. These sites include marketers who sell gasoline to the public (such as service stations and convenience stores) and nonmarketers who use tanks solely for their own needs (such as fleet service operators and local governments). Due to the potential for significant environmental impact to soil and groundwater, inspection of these tank operations for full compliance with regulations cannot be understated. A high percentage of UST facilities must be reviewed each year to assure that contaminants are not leaking and posing a threat to our aquifers.

CLEAN AIR

Milestone: By 2007, air throughout the State will meet national Clean Air Act standards for ozone and other air pollutants.

Activities:

Participate in the DEP Pilot program for VOC=s from Consumer target Products*:* Begin to conduct investigation activities to enforce Subchapter 23 and 24 of the Air Pollution Control Code including, but not limited to, the prevention of air pollution from architectural coatings and the control of organic compounds from consumer and commercial products. This effort will include inspections at retail stores to assure that specified coating materials are labeled properly for VOC content, as well as to assure that portable fuel containers meet more recent design standards to prevent the escape of VOC's in both the home and commercial settings (lawnmowers, leafblowers, landscapers, construction, etc.).

Continue to participate in the DEP=s enhanced idling enforcement initiative by conducting the DEP specified hours of surveillance and response and investigation of all idling complaints, issuing violations were necessary and assuring sufficient follow-up to achieve compliance with idling regulations. During 2006, 140 man-hours were dedicated to the control of idling vehicles. For 2007, the program will reduce to offset accomplishment of other objectives (control of VOC's from Architectural Coatings sold at retail stores). Idling enforcement will continue to be the responsibility of both CEHA and Police enforcement efforts.

Continue to inspect minor and B source air permitted facilities to determine compliance with the State=s air pollution control regulations, with emphasis on inspecting at least 20% of the gas station universe. Violations will be assessed penalties to the exact extent of the statutorily allowable, and all DEP SOP=s for Grace Period eligibility will be strictly adhered to. During 2006, Air Code Compliance inspections were conducted in 75 Dry Cleaner facilities, 40 Gas Stations, and 100 other applicable existing facilities, including Auto Body Shops (215 in total). For 2007, there are 315 inspections of this type projected.

Continue to conduct inspections at potential facilities that may require air permits as needed.

Continue to conduct complaint investigations as referred by citizens and NJDEP. Implement actions to have the source of complaints corrected when validated. During 2006, there were over 250 complaint investigations conducted in response to citizen complaints of Air pollution. The same level of response will be maintained for the 2007 cycle and response capacity will match the demand as needed.

Continue to compile and maintain files and records to support NJDEP enforcement actions.

Continue to initiate enforcement proceedings in a court of competent jurisdiction against violators as required by the NJDEP.

Deliverables: a) Submit all compliance monitoring inspection reports to the NJDEP=s

Minor Source Compliance Investigation Program within 60 days of completing the inspection.

b) Forward records of enforcement actions to the appropriate NJDEP office in accordance with protocols.

NOISE CONTROL

Milestone: Control noise that unnecessarily degrades the quality of life and/or affects the health and safety of the people in Essex County.

Activities:

Investigate noise complaints received from citizens and the NJDEP that are under the jurisdiction of the Noise Control Regulations, and if applicable, enforce these regulations to achieve compliance. During 2006, approximately 40 Noise responses were conducted. The same level of response will be maintained for the 2007 cycle and response capacity will match the demand as needed.

As requested by local officials and others provide guidance on noise regulations and noise prevention and abatement.

Deliverables: a) Maintain records of all complaint investigations.

b) Submit reports as required by NJDEP.

c) Follow NJDEP guidelines.

PESTICIDES

Objective: To ensure pesticide control compliance by monitoring activities in accordance with NJDEP protocol.

Activities:

Investigate the sale of illegal pesticides sold on the street, in “small grocery stores”, “Dollar Stores”, and hardware stores particularly in urban areas. Verify that all pesticides include an EPA registration number on the label, and that the pesticide is appropriate for general use (i.e. is not a “restricted use” pesticide). Immediately refer any findings of suspected illegal pesticides to the NJDEP Pesticide Control Program.

Conduct school inspections pursuant to the New Jersey School Integrated Pest Management (IPM) Program. Assist the schools in the adoption and implementation of IPM in compliance with State law. Assist the facilities in locating, understanding and implementing the “Model School IPM Plan for New Jersey Schools”, and all other templates and information for IPM compliance and assistance provided by the NJDEP.

Continue to conduct routine inspections of schools, restaurants, multi-unit dwellings, commercial landscapers and golf courses to determine whether the owner or operator has applied or caused to be applied any pesticide, and if so, whether such application was performed in compliance with NJAC7:30-1 et seq. and where applicable, was performed by a certified and registered pesticide applicator, a registered operator and/or a registered applicator business. During 2006, 80 inspections were conducted in accordance with NJDEP policies and procedures. For 2007, there are 80 inspections of this type projected. Continue to check for applicator licenses and inspect service vehicles, pesticide containers, pesticide service containers, storage areas, application and household, structural, turf, ornamental, golf course and area or community-wide notification requirements, permits, and application records while performing inspections pursuant to NJAC7:30-1 et seq. Inspections shall be performed as per the AStandard Operating Procedures for Performing Pesticide Control Investigations under CEHA@.

Perform complaint investigations and collect samples at the direction of NJDEP.

Deliverables: Submit completed inspection reports and/or NJDEP checklists to the NJDEP Pesticides Program for review and approval. In 2004, 75 facilities were inspected for compliance with Pesticide Regulations and all non-compliance issues were referred to the DEP in accordance with existing program SOP=s.

Compile and maintain files and records to support NJDEP Pesticide Control enforcement actions.

Notify NJDEP on all NOV=s and warning letters issued.

AMBIENT SURFACE WATER SAMPLING

Objective: Collect five water samples, evenly spaced over a 30-day period, from June 1 through August 31, in accordance with the Field Sampling Manual, at the freshwater ambient monitoring stations established by NJDEP

Activities: NJDEP will provide courier service to transport samples to the NJDEP laboratory in Trenton. NJDEP will provide appropriate bottles, lab sheets, and bottle labels.

CLEAN AND PLENTIFUL WATER

Water Compliance & Enforcement Program

Milestone: Control pollution emitted to the waters of the State.

Activities:

Continue to conduct routine compliance monitoring inspections of public non-community potable (PNC) water supplies. Conduct inspections promptly for those systems which are identified as significant non-compliers (SNC), and promptly submit completed inspection reports to the NJDEP. Continue to implement the NJDEP=s Zero Tolerance Enforcement policy for PNC violations.

Continue to investigate all water pollution complaints received from citizens and NJDEP. These investigations include, but are not limited to, unpermitted discharges to surface or ground water. During 2006, approximately 30 responses were conducted. The same level of response will be maintained for the 2007 cycle and response capacity will match the demand as *needed.*

Continue to provide follow up to MCL violations at PNC=s. Verify public notification. Verify remedial action(s) taken to return to compliance.

Deliverables: Compile and maintain files and records to support all inspections and investigations, per above, and NJDEP and county enforcements recommendations. Submit all records and reports to NJDEP within 60 days of the activity. In 2004, 13 PNC inspections were coordinated with certified Well Operators as required under NJAC7:10 and all non-compliance issues were addressed.

SAFE & H**EALTHY** **COMMUNITIES**

Milestone: Exposure to environmental risk will be controlled and minimized.

Site Remediation Program:

Activities:
Continue to conduct comprehensive inspections of regulated underground storage tanks (UST=s) to determine compliance status. Reinspect regulated UST=s every three years as resources are allocated. Ensure full implementation of Underground Storage Tank Regulations, in accordance with current DEP policies. These inspections focus on ensuring that proper and required Leak Detection devices are in place, installed properly, properly permitted, operating properly and being tested regularly to prove same. Violations will be assessed penalties to the exact extent of the statutorily allowable, and all DEP SOP=s for Grace Period eligibility will be strictly adhered to. During 2006, 100 facilities were inspected for compliance with Hazardous Substance Storage requirements and all violations identified were addressed. In 2007, there are 75 inspections of this type projected

Deliverables: a) Submit to NJDEP (at CEHA audit) proof of meeting PEOSHA health and safety training requirements.

b) Follow NJDEP guidelines and protocols for UST Leak Detection Inspections.

c) Submit completed inspection reports, Field NOV=s, Letters, Settlement documents as required by NJDEP. Adhere to a 5-day DEP review period prior to issuing penalty documents.

d) Follow NJDEP notification protocol and submit investigation reports as required by NJDEP.

SOLID WASTE

As New Jersey=s second largest county, Essex County must continuously confront substantial issues relating to the generation, transportation and disposal of solid waste and recycling material. The Essex County Health Department (ECHD) has taken direct responsibility for implementing a solid waste control program as delineated in the Essex County Environmental Work Plan. This comprehensive solid waste/recycling program includes, but is not limited to, facility compliance inspections and enforcement of solid waste statutes, regulations and ordinances.

SOLID WASTE PROGRAM

Milestone: To achieve and maintain the safe management of wastes and recycling material in an environmentally sound manner. To achieve a 60% recycling rate for Essex County

Activities: Continue to investigate all solid waste complaints received from citizens and NJDEP.

Conduct routine compliance monitoring of Class A, B and C recycling facilities. Continue to provide updated lists to NJDEP.

Conduct routine compliance monitoring of solid waste and rail transfers facilities located within Essex County.

Continue to monitor solid waste transporters and generators for compliance with the County=s Solid Waste and Recycling Management Plan.

Conduct Exempt A-901 Transporter interviews.

Conduct school recycling compliance inspections (minimum 75)
and develop an educational out-reach recycling program for high school students

Conduct compliance monitoring for Community Right to Know

Coordinate efforts with the Essex County Utilities Authority to increase county recycling rates by developing out-reach recycling programs and increasing recycling enforcement

Deliverables:

a) Enforce the Solid Waste Management Act and initiate enforcement
proceedings pursuant to NJDEP guidelines.

b) Conduct solid waste facility inspections at
required frequency and update lists.

c) Submit all reports required by the NJDEP